



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/674,187

09/29/2003

Jung-Seon Park

CU-3337 VE

2658

26530 7590 10/02/2007  
LADAS & PARRY LLP  
224 SOUTH MICHIGAN AVENUE  
SUITE 1600  
CHICAGO, IL 60604

EXAMINER

GUIDOTTI, LAURA COLE

ART UNIT

PAPER NUMBER

1744

MAIL DATE

DELIVERY MODE

10/02/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/674,187	<b>Applicant(s)</b> PARK ET AL.	
	<b>Examiner</b> Laura C. Guidotti	<b>Art Unit</b> 1744	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 09 July 2007.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1 and 3-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 and 3-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

1. Claims 1 and 3-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Weaver et al., US 5,524,321 in view of Kilström, US 5,935,279, Harmen, US 2002/0162188, and Downey et al., US D493,926.

Weaver et al. disclose a vacuum cleaner that comprises a nozzle assembly (16), a main body (14) having a dust collector (130), a dust receptacle (filter bag 139), a main body frame having an upper casing (46, Figure 5) and a lower casing (44, Figure 5), a button operation portion formed on an upper part of the main body frame (70, Figure 9), a motor within the main body generating a suction at the nozzle assembly (166, Column

Art Unit: 1744

4 Lines 41-57), a frame portion (18, 82, best shown in Figure 4), pivotably connected with the nozzle assembly (Column 2 Lines 3-6), wherein the nozzle assembly includes a seating portion that engages a bottom part of the main body (204, in Figure 7 the seating portion is shown as nearly hemispherical in cross-section), wherein the main body is detachable from the frame portion by operation of the button operation portion (Column 7 Lines 19-21), the main body being operable and capable of drawing dust and dirt into the dust collector when the main body is detached from the frame portion (Column 8 Lines 1-8). Regarding claim 4, the main body comprises a handle portion to permit a user to grab on the upper part (60) (claims 1 and 16). Regarding claim 5, the handle portion is shaped to correspond to the shape of the button operation portion and includes a hollow recess therein (shown in Figures 1, 4, 5, and 9). Regarding claim 6, the main body further comprises on one side thereof a rotatable first cord holder (68, see rotational directional arrows Figure 1) and a stationary second cord holder formed at a predetermined distance from the first cord holder (66). Regarding claim 7, the main body further comprises a communicating member disposed at a bottom part of the main body (94, Figure 5). Regarding claim 8, the main body includes a rear portion (54, facing out of the page in Figure 2 or the upper portion of the main body in Figure 8) and further includes a flexible hose (90) capable of being connected to the communicating member (Figure 5), a house supporting member (92), and a discharging grill through which clean air is discharged (58). Regarding claim 9, the flexible hose is removably connected to the communicating member (Column 3 Lines 35-44), and when removed, capable of being connected with an auxiliary accessory on one end thereof (Column 3

Lines 49-54). Regarding claim 10, the main body further comprises an on/off switch located on a front side of the main body (62, Figure 1). Regarding claim 11, the frame portion further includes at least one supporter formed on at least one side thereof to provide support for the main body (84). Regarding claim 12, the supporter has a mounting guide on one side of the supporter for the mounting of accessories for use with the vacuum cleaner (100, Figure 9). Regarding claim 14, the frame portion further comprises wheels on both sides of a bottom thereof to permit easier motion of the vacuum cleaner over the area to be cleaned (110, 111). Regarding claim 15, the frame portion has a frame handle portion extending upwardly from the top of the frame portion (86) and a handle recess corresponding to the button operation portion of the main body (Figure 1). Weaver et al. does not include that the dust collector is a cyclone dust collector for centrifugally separating dust or dirt from the air, a connecting projection integrally formed with the button operation portion, capable of moving together with the button operation portion along with a connecting groove capable of receiving the connecting portion, or a pair of hemispherical seating portions that engage a bottom part of the main body.

Kilström teaches a vacuum cleaner that particularly teaches that it is known and desirable to convert a vacuum cleaner having a conventional dust bag into a cyclone vacuum cleaner that can be easily installed on the vacuum cleaner (Column 1 Lines 62-67, Column 2 Lines 12-24). The cyclone operates and removes dust or dirt through the air by centrifugal forces (Column 5 Lines 21-26) and the dust receptacle (45) collects the separated dust or dirt.

Harmen particularly teaches a main body (22) having a button operation portion formed on an upper part of the main body frame (28, Figure 2), and a connecting projection (100) integrally formed with the button operation portion capable of moving together with the button operation portion (see Figures 8a-8b in particular; paragraphs 24-26), a frame portion (12) connected with the nozzle assembly (14; see Figure 1) having a connecting groove capable of receiving the connecting projection therein (portions of latch 80, connecting groove is unlabeled, see Figures 8a-8b), the button operation portion further comprises a button operation portion body which is semicircular (20 is semicircular in shape), a biasing member (102, paragraph 25), a pressing button integrally formed with the button operation portion at a top part thereof (106), and a guide extended from one side of the button operation portion (98). Regarding claim 3, the main body frame comprises a biasing member supporting position for supporting the biasing member (unlabeled, see Figures 8a-8b, where 102 is supported), a guide groove for guiding movement of the guide (see Figures 8a-8b), and an opening through which the connecting projection protrudes (unlabeled, see Figures 8a-8b) whereby the button operation portion moves in the main body as the pressing button of the button operation portion is depressed (paragraphs 24-26, 29). Regarding claim 13, the connecting groove further includes a slanted part (such as 112 or other unlabeled portions, see Figures 8a-8b).

Downey et al. display a vacuum portion that includes a pair of hemispherical seating portions that are capable and are inherently meant to engage a bottom part of a main body of an upright vacuum cleaner (best shown in Figures 1, 2, and 4-5).

It would have been obvious for one of ordinary skill in the art at the time of the invention to substitute the conventional dust collector and receptacle of Weaver et al. for a cyclone dust collector having a receptacle, such as the one Kilström teaches, in order for a user to be able to easily install and dispose of debris, and further it would have been obvious for one of ordinary skill in the art to substitute the button operation portion and modify the frame portion of Weaver et al., for a button portion having an integrally formed connecting projection that is received in a connecting groove of the frame, as Harmen teaches, in order for a user to easily and ergonomically remove a main body from a frame of a vacuum cleaner, and further it would have been obvious for one of ordinary skill in the art to substitute the seating portion of Weaver et al. for a pair of hemispherical seating portions, as Downey et al. teach, in order to engage and retain the main body of an upright vacuum cleaner and the two smaller hemispherical seating portions would require less material to manufacture than making a larger singular seating portion.

### ***Response to Arguments***

2. Applicant's arguments with respect to claims 1 and 3-16 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

3. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

Art Unit: 1744

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.


4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Laura C. Guidotti whose telephone number is (571) 272-1272. The examiner can normally be reached on Monday-Thursday, 7:30am - 5pm, alternating Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gladys Corcoran can be reached on (571) 272-1214. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



Art Unit: 1744

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
Laura C Guidotti  
Patent Examiner  
Art Unit 1744

lcg